FACSIMILE HEADER SHEET

US Army Corps of Engineers
Sacramento District

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4-25-97
(Date)

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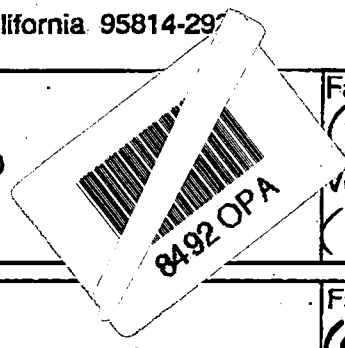

FROM:	Fax Phone:
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Number of pages to follow: 2

Richard Haavisto
(Releaser's Signature)

COMMENTS:

Here are 2 Project Notes from JEG re: the situation at Vernal, Utah. Please read them over, and let me know what you think.

Are you available for a meeting at Vernal during the week of 12-16 May 97, or 19-23 May 97?

Thanks,
Rich

CESPK FORM 63
1 JAN 92

(Edition of 1 Jan 91 may be used)

APR 25 '97 11:53AM CESPK-ED

JACOBS ENGINEERING

Date: 4/25/97

Naples Truck Stop Vernal, Utah	PROJECT NOTE NO:	17	PROJECT NO. 21H10315 CONTRACT NO. D. O. 15 (Mod 1& Mod 4)

Confirmation Of:		Conference	Date Held:	
	X	Telephone Talk	Date Issued	4/25/97
		Meeting	Recorded By:	MS

Subject: State of Utah guidelines for TPH vapor emissions associated with site remediation-
Naples Truck Stop, Vernal, UT - D.O. #15

Participants:

Technical Memorandum

ITEM	ACTION REQ'D BY
On Tuesday 18 March 1997, JEG called Mark Crim at State of Utah Division of Environmental Response & Remediation to discuss the current Utah air emission requirements for temporary fuel vapor recovery systems similar to the system in place at Naples truck Stop, Delivery Order (D.O.) #15. Mark recommended contacting John Black of Utah Air Quality Board for further information on obtaining a variance or a temporary discharge permit beyond the De-Minimis limit of 3,000 pounds per year currently in place. I received a call back from John on Monday 31 March regarding this matter. Following a brief discussion of available options, we concluded there was a need to operate a vapor emission control system for operation of the two-phase groundwater recovery and treatment systems beyond the De-Minimis limit.	

Distribution:
Rich Haavisto, USACE
Renee Zollinger, USACE
Project File

JACOBS ENGINEERING

Date: 4/25/97

Naples Truck Stop Vernal, Utah	PROJECT NOTE NO:	18	PROJECT NO. 21H10315 CONTRACT NO. D. O. 15 (Mod 1& Mod 4)

Confirmation Of:	☐ Conference	Date Held:	
	☐ Telephone Talk	Date Issued	4/25/97
	☐ Meeting	Recorded By:	MS

Subject: Installation of Vapor Treatment System - Naples Truck Stop, Vernal, UT - D.O. #15

Participants:
Technical Memorandum

ITEM	ACTION REQ'D BY
Based on discussion with Utah officials on 18 March 1997, it is still very important for Jacobs to closely monitor the vapor emissions from the Naples site. According to the latest two sets of field data collected on 5 March and 3 April 1997, the hydrocarbon emissions were 3,300 and 2,000 parts per million by volume (ppmv) respectively, at an air flowrate of 80 cubic feet per minute. The emission levels are substantially above the levels measured in November 1996 of 390 ppmv prior to winter shutdown. The significant increase in vapor concentration can be attributed to the build up over the winter shutdown period and the addition of two new recovery wells in the most contaminated area of the plume. Under these parameters, the resulting air emissions averages out to 80 pounds per day between 5 March and 3 April '97. At these concentrations, the De-Minimis limit was reached in little over 30 days of operation by 10 April, starting 4 March 1997. JEG shut the system down on 9 April 1997 in order to not exceed the De-Minimis air limitations. Vapor treatment alternatives were evaluated. Technologies considered include vapor phase granular activated carbon (GAC) treatment, thermal oxidation, or catalytic oxidation. Based on previous price quotes, the current budget allows for operation of a GAC system for the next 2 months including mobilization and demobilization. Costs for a GAC system are $5,200 of GAC per 200 pounds of hydrocarbon recovered. The current rate of hydrocarbon vapor recovery of 80 pounds per day results in potentially recovering over 2,500 pounds of hydrocarbon in 2 months of operation, assuming a linear decline from 2000 ppmv measured in April to below 1,000 ppmv in vapor concentrations through end of June 1997. GAC costs associated with this option may amount to $50,000 or more. This cost is not justifiable when compared to costs of an oxidation system based on the higher than expected vapor levels. Given the range of recovered VOCs discussed above, a catalytic oxidizer appears more cost effective for vapor treatment. Utility costs associated with operation of a thermal oxidizer will exceed operating a catalytic oxidizer without any added benefit. JEG has received competitive bids for rental and operation of a 100 cfm electrically heated catalytic oxidizer. The estimated total cost to operate an electric catalytic oxidizer through June 1997 is approximately $10,500 including minor electrical modifications. These costs include a $2,800 per month rental, $2,200 for startup, and $2,200 for mob and demob. This compares closely to the current project budget of $10,200 and is based on operation of vapor and liquid phase GAC systems, only assuming much lower vapor concentrations than the system is currently recovering. Therefore the option of operating an oxidizer is technically justified and more economical. Distribution Rich Haavisto, USACE Renee Zollinger, USACE Project File	JEG to mobilize a vapor treatment system and start operation by the week of 1 May 1997

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